INDEX

PAGE

Air, Clean, Pure, for our Cities, by ARTHUR K. OHMES..... 471
Air, Flowing in Round Galvanized Ducts, Coefficient of, by J. E. EMSWILER 537
Air Leakage, Report of the Establishment of a Standard Coefficient for Heat Losses Affected by Wind Movement, by H. W. WHITTEN and R. C. MARCH..... 195
Air Leakage, "Window Leakage," by HENRY C. MEYER, JR. and STEPHEN F. VOORHEES 183
ALLEN, JOHN R., Heat Analysis of a Hot-Air Furnace..... 293
Heat Transmission Through Building Materials..... 507
Discussion on Clean, Pure Air for Our Cities.....475, 476
Discussion on Flow of Air in Round Galvanized Cuts..... 541
Discussion on Heat Analysis of a Hot-Air Furnace..... 309
Discussion on Heat Transmission Through Building Materials, 518, 519, 520, 524, 525
Discussion on Institution for Heating and Ventilating Art.... 270
Discussion on Report of Committee on Education and Publicity 89
Discussion on Testing of Warm Air Furnaces..... 533
Annual Meeting, Proceedings of Twenty-second..... 9
ARMAGNAC, A. S., Discussion on Commercial Drying Apparatus..... 485
Discussion on Heat Transmission Calculations..... 497
Discussion on Report on Best Position for a Radiator..... 447
Discussion on The Ventilation of Living Quarters..... 350
A. S. M. E. Boiler Code,—Effect on Heating Boilers, by C. W. OBERT.... 573

BALDWIN, WM. J., Address..... 405
Discussion on Clean, Pure Air for Our Cities..... 473
Discussion on Design and Operation of Fractional Valves, 459, 461, 462, 467
Discussion on Equitable Building Plant..... 289
Discussion on Heat Analysis of a Hot-Air Furnace..... 304
Discussion on Heat Transmission Calculations..... 490
Discussion on Heat Transmission Through Building Materials, 521, 522
Discussion on Report on Best Position for a Radiator....447, 449
Discussion on Report of Committee on Education and Publicity.. 92
Discussion on Report on Com. on Eng. Co-Operation....413, 414
Discussion on The Ventilation of Living Quarters..... 350

PAGE

BARWICK, THOMAS, Discussion on Heating and Ventilating Plant, Waite High School 136
Discussion on Heating and Ventilating Plant, Waite High School 137
BLACKMORE, J. J., Can We Standardize the Requirements for Ventilation? 375
Discussion on Air Leakage..... 206
Discussion on Can We Standardize Requirements for Ventilation? 398
Discussion on Flow of Air in Round Galvanized Ducts....542, 543
Discussion on Heat Analysis of a Hot-Air Furnace..... 303
Discussion on Heat Transmission Through Building Materials, 516, 524, 525
Discussion on Heating a Chicago Office Building..... 164
Discussion on Heating a Conservatory and Greenhouse....570, 571
BLANEY, F. A., Discussion on Heat Transmission Through Building Materials 517
Boiler Code, Effect on Heating Boilers of A. S. M. E., by C. W. OBERT.. 573
BOLTON, REGINALD PELHAM, Discussion on Air Leakage.....202, 208
Discussion on Operating Costs in Hospitals..... 105
Discussion on Operating Costs of Public Buildings..... 99
Discussion on Report of Committee on Education and Publicity 81
BOYDEN, DAVIS S., The Establishment of Standard Heating Elements for Cooking Apparatus with Special Reference to Low Pressure Steam 107
Discussion on Cost of Removing and Replacing Pavements.. 126
Discussion on Operating Heating Plants..... 178
Discussion on Standard Heating Elements..... 118
Building Materials, Heat Transmission Through, by JOHN R. ALLEN.... 507
BUSHNELL, S. MORGAN, Heating a Chicago Office Building..... 153
Discussion on Cost of Operating Heating Plants..... 179
Discussion on Heating a Chicago Office Building..... 164

Calculations, Heat Transmission, by ARTHUR K. OHMES..... 487
CARPENTER, ROLLA C., Discussion on Report of Committee on Education and Publicity 88
CARSON, MR., Discussion on Prevention of Corrosion in Pipe..... 330
CARY, A. A., Discussion on Equitable Building Plant..... 290
Discussion on Heat Analysis of a Hot-Air Furnace..... 303
Discussion on Institution for Heating and Ventilating Art.... 272
Discussion on Prevention of Corrosion in Pipe..... 323
CASSELL, J. D., Discussion on A. S. M. E. Boiler Code..... 579
Discussion on Best Position for a Radiator in a Room..... 451
Discussion on Heating and Ventilating Plant, Waite High School 136, 137, 138

PAGE

CHEW, FRANK K., Discussion on Design and Operation of Fractional Valves 467
Discussion on Heat Analysis of a Hot-Air Furnace..... 302
Discussion on Heating a Conservatory and Greenhouse..... 571
Discussion on Report of Committee on Engineering Co-Operation 413, 414
Discussion on Testing of Warm Air Furnaces..... 534
Chicago Commission on Ventilation, The Ventilation of Living Quarters 333
Cinder Collector,—Clean, Pure Air for Our Cities, by ARTHUR K. OHMES 471
Coefficient for Heat Losses Affected by Wind Movement, Report of the Establishment of a Standard, by R. C. MARCH and H. W. WHITTEN 195
Coefficient of Friction of Air Flowing in Round Galvanized Iron Ducts, by J. E. EMSWILER..... 537
COLLAMORE, RALPH, Discussion on Heating and Ventilating Plant, Waite Plant School 137
Commercial Drying Apparatus, by L. P. DWYER..... 479
Committee, Determine the Best Position for a Radiator in a Room, Report of 441
Committee on Education and Publicity, Report of..... 67
Committee on Engineering Co-Operation, Report of..... 408
Committee on Operating Costs of Heating and Ventilating and Power Plants in Hospitals, Report of..... 101
Committee on Operating Costs of Public Buildings, Report of..... 95
Committee on Revision of Constitution, Report of..... 27
Committee Report on Minimum Ventilation Requirements for Public and Semi-Public Buildings, for Legislation Purposes..... 43
Cooking Apparatus,—The Establishment of Standard Heating Elements for,—with Special Reference to Low Pressure Steam, by DAVIS S. BOYDEN..... 107
COOPER, FRANK IRVING, Discussion on Air Leakage..... 205
Corrosion in Pipe,—The Prevention of, by F. N. SPELLER..... 311
Cost Data, Relative to the Installation of Steam Distributing Systems in a Large City, Engineering and, by F. H. VALENTINE..... 547
Cost of Operating Heating Plants, The, by GEO. W. MARTIN..... 167
Cost of Removing and Replacing Pavements Incident to the Installing of Heating Lines in City Streets, by W. F. VERNER..... 121
Council, Report of..... 11
CYPHERS, J. F., Operation of Warehouse Heating Plant of Merck & Co., Rahway, N. J..... 141
Discussion on Operation of Warehouse Heating Plant..... 150

DAVENPORT, R. W., Notes on the Testing of Warm Air Furnaces..... 527
Discussion on Testing of Warm Air Furnaces..... 533
DAVIS, F. K., Discussion on Air Leakage..... 200
Discussion on Heating a Chicago Office Building..... 164
Discussion on Operation of Warehouse Heating Plant..... 150
Discussion on Report of Committee on Education and Publicity 81
Discussion on The Ventilation of Living Quarters..... 350

XUM

PAGE

DONNELLY, JAMES A., Design and Operation of Fractional Valves.... 453
Discussion on Air Leakage..... 208
Discussion on Design and Operation of Fractional Valves..... 464
Discussion on Heat Transmission Calculations..... 497
Discussion on Heat Transmission Through Building Materials. 517
Discussion on Heating and Ventilating Plant, Waite High School 139
Discussion on Operation of Warehouse Heating Plant..... 149
Discussion on Report of Committee on Education and Publicity 91
Discussion on Report on Best Position for a Radiator..... 448
DRISCOLL, W. H., Heating and Ventilating Plant of the Equitable Bldg. 275
Discussion on Air Leakage..... 206
Discussion on Equitable Building Plant..... 290
Discussion on Heating a Chicago Office Building..... 163
Drying, Commercial Apparatus, by L. P. DWYER..... 479
Ducts, Coefficient of Friction of Air Flowing in Round Galvanized, by J. E. EMSWILER..... 537
DWYER, L. P., Commercial Drying Apparatus..... 479

EHRLICH, M. WILLIAM, Discussion on Equitable Building Plant..... 289
Discussion on Heat Analysis of a Hot-Air Furnace..... 303
Discussion on Heat Transmission Calculations..... 492
Discussion on Heating and Ventilating Plant, Waite High School 137
Discussion on Operation of Warehouse Heating Plant..... 150
Discussion on Standard Heating Elements..... 119
EMSWILER, J. E., Coefficient of Friction of Air Flowing in Round Galvanized Iron Ducts 537
Discussion on Flow of Air in Round Galvanized Ducts..542, 543, 544
Equitable Building, Heating and Ventilating Plant of the, by W. H. DRISCOLL 275

FELDMAN, A. M., Discussion on Institution for Heating and Ventilating Art 270
Discussion on Heating a Chicago Office Building..... 163
Fractional Valves, Design and Operation of, by JAMES A. DONNELLY.. 453
FRANKLIN, MILTON W., Discussion on Heat Transmission Through Building Materials 516, 523
Discussion on New York State Commission on Ventilation.... 370
Discussion on Report of Committee on Education and Publicity 82
Discussion on Standard Heating Elements..... 119
Furnace, Hot-Air, Heat Analysis of a, by JOHN R. ALLEN..... 293
Furnaces, Notes on the Testing of Warm Air, by R. W. DAVENPORT.... 527
FULLER, C. A., Discussion on Report of Committee on Education and Publicity 92

Garages, Ventilation of, by C. W. OBERT..... 499
GIFFORD, ROBT. L., Discussion on Design and Operation of Fractional Valves 463
GLORE, EVINS F., Discussion on A. S. M. E. Boiler Code..... 582

PAGE

Greenhouse, Heating a, by J. D. HOFFMAN 565
HALE, JOHN F., Discuss. on Design and Oper. of Fractional Valves, 458, 460
Discussion on Report on Best Position for a Radiator....447, 450
Discussion on Report of Committee on Engineering Co-Operation 413, 414
HART, HARRY M., President's Address, Semi-Annual Meeting 403
Discussion on Can We Standardize Requirements for Ventilation? 396
Discussion on Clean, Pure Air for Our Cities 477
Discussion on Commercial Drying Apparatus 486
Discussion on Design and Operation of Fractional Valves 461
Discussion on Flow of Air in Round Galvanized Ducts.542, 544, 545
Discussion on Heat Transmission Calculations 494, 496
Discussion on Heat Transmission Through Building Materials, 515, 525
Discussion on Heating a Conservatory and Greenhouse 571
Discussion on Installation of Steam Distributing Systems 563
Discussion on New York State Commission on Ventilation 372
Discussion on Report on Best Position for a Radiator 450, 451
Discussion on Report of Committee on Education and Publicity 94
Discussion on Report of Committee on Engineering Co-Operation 413, 415
Discussion on Ventilation of Garages 506
Heat Analysis of a Hot-Air Furnace, by JOHN R. ALLEN 293
Heat Losses Affected by Wind Movement,—Report of the Establishment of a Standard Coefficient for, by H. W. WHITTEN and R. C. MARCH 195
Heat Transmission Calculations, by ARTHUR K. OHMES 487
Heat Transmission Through Building Materials, by JOHN R. ALLEN 507
Heating a Chicago Office Building, by S. MORGAN BUSHNELL 153
Heating a Conservatory and Greenhouse, by J. D. HOFFMAN 565
Heating and Ventilating Art, a Notable Institution for the Advancement of the, by ARTHUR K. OHMES 257
Heating and Ventilating Plant of the Equitable Building, by W. H. DRISCOLL 275
Heating and Ventilating Plant, Waite High School, Toledo, Ohio, by SAMUEL R. LEWIS 127
Heating Plant, Operation of Warehouse—of Merck & Co., Rahway, N. J., by J. F. CYPHERS 141
Heating Plants, The Cost of Operating, by GEO. W. MARTIN 167
Heating Boilers, Effect of A. S. M. E. Boiler Code on, by C. W. OBERT .. 573
Heating Elements, The Establishment of Standard—for Cooking Apparatus with Special Reference to Low Pressure Steam by DAVIS S. BOYDEN 107
HILL, E. VERNON, Discussion on Report of Committee on Education and Publicity 90
Discussion on Can We Standardize Requirements for Ventilation 394, 397
Discussion on New York State Commission on Ventilation 370

PAGE

HOFFMAN, J. D., Heating a Conservatory and Greenhouse..... 565
Discussion on Heating a Conservatory and Greenhouse..... 571
HOGAN, E. L., Discussion on Operation of Warehouse Heating Plant.... 148
Discussion on Clean, Pure Air for Our Cities.....474, 475, 476

Illinois Chapter, Annual Report of..... 429
In Memoriam 585
Institution, Notable, for the Advancement of the Heating and Ventilating Art, by ARTHUR K. OHMES..... 257

JOHNSON, FRED. W., Discussion on Heat Transmission Through Building Materials 517

KENT, WM., Discussion on Can We Standardize Requirements for Ventilation? 397
Discussion on Heating and Ventilating Plant, Waite High School 137
Discussion on New York State Commission on Ventilation..... 370
Discussion on Report of Committee on Education and Publicity 87
KIMBALL, DWIGHT D., Discussion on Heating and Ventilating Plant, Waite High School 136
Discussion on Operating Costs of Public Buildings..... 99
Discussion on Report of Committee on Education and Publicity 89
Discussion on Standard Heating Elements..... 119
KINKEAD, J. A., Discussion on Prevention of Corrosion in Pipe..... 331

LARSON, G. L., Tests on the Recirculation of Washed Air..... 213
Discussion on Tests of Recirculation of Washed Air..... 255
Leakage, Window, by HENRY T. MEYER, JR. and STEPHEN F. VOORHEES.. 183
LEWIS, SAMUEL R., Heating and Ventilating Plant, Waite High School, Toledo, Ohio 127
Discussion on Equitable Building Plant..... 289
Discussion on Heating and Ventilating Plant, Waite High School, 135, 137, 138, 140
Discussion on Report of Committee on Education and Publicity 89
Discussion on Ventilation of Living Quarters.....350, 351
Living Quarters, The Ventilation of, Chicago Commission on Ventilation 333
LYLE, J. IRVINE, Discussion on Report of Committee on Education and Publicity 82
LYND, ROY, Discussion on Heat Analysis of a Hot-Air Furnace..... 304

MCCABE, JOHN C., Discussion on A. S. M. E. Boiler Code..... 581
MCCANN, FRANK G., Discussion on New York State Commission on Ventilation 372
MCCOLL, JAY R., Discussion on Flow of Air in Round Galvanized Ducts 541
MARCH, R. C., WHITTEN, H. W., Report of the Establishment of a Standard Coefficient for Heat Losses Affected by Wind Movement 195
MARTIN, GEO. W., The Cost of Operating Heating Plants..... 167
Discussion on Cost of Operating Heating Plants..... .. 180

PAGE

Massachusetts Chapter, Annual Report of 431
MAY, E. A., Discussion on A. S. M. E. Boiler Code 580
Discussion on Heating a Conservatory and Greenhouse 570, 571
Discussion on Heat Transmission Through Building Materials, 517, 519, 520
MAYER, R. J., Discussion on Installation of Steam Distributing System .. 563
MEYER, HENRY C., JR., VOORHEES, STEPHEN F., Window Leakage 183
MEYER, HENRY C., JR., Discussion on Operating Costs in Hospitals 105
Discussion on Air Leakage 208, 211
Michigan Chapter, Annual Report of 432

New York Chapter, Annual Report of 433
New York State Commission on Ventilation for the Year 1915,—An Outline of the Activities of the, by GEORGE T. PALMER 353

OBERT, C. W., Ventilation of Garages 499
Effect of the A. S. M. E. Boiler Code on Heating Boilers 573
Discussion on A. S. M. E. Boiler Code 582
Office Building, Heating a Chicago, by S. MORGAN BUSHNELL 153
Ohio Chapter, Annual Report of 435
OHMES, ARTHUR K., Clean, Pure Air for Our Cities 471
Heat Transmission Calculations 487
A Notable Institution for the Advancement of the Heating and Ventilating Art 257
Discussion on Air Leakage 208
Discussion on Institution for Heating and Ventilating Art 269
Operating Costs, Report of Committee on 95
Report of Committee on—of Heating and Ventilating and Power Plants in Hospitals 101
OTIS, JAMES S., Discussion on Institution for Heating and Ventilating Art 271

PALMER, GEORGE T., An Outline of the Activities of the New York State Commission on Ventilation for the Year 1915 353
Discussion on New York State Commission on Ventilation 372
Discussion on Tests of Recirculation of Washed Air 252
Pavements, Cost of Removing and Replacing, Incident to the Installing of Heating Lines in City Streets, by W. F. VERNER 121
Pennsylvania, Eastern, Chapter, Annual Report of 437
Pipe, The Prevention of Corrosion in, by F. N. SPELLER 311
President's Address—Semi-Annual Meeting 403
Proceedings of the Semi-Annual Meeting (1916) 401
Proceedings of Twenty-second Annual Meeting 9

QUAY, D. M., Discussion on Air Leakage 210
Discussion on Heating a Chicago Office Building 164
Discussion on Heating and Ventilating Plant, Waite High School 137
Discussion on Report of Committee on Education and Publicity 94

PAGE

Recirculation of Washed Air, Tests on, by G. L. LARSON 213
Radiator, Report Relative to the Best Position for a Radiator in a Room 441
Report of
Illinois Chapter 429
Massachusetts Chapter 431
Michigan Chapter 432
New York Chapter 433
Ohio Chapter 435
Eastern Pennsylvania Chapter 437
Report of Committee on
Education and Publicity 67
Engineering Co-Operation 408
Operating Costs of Heating and Ventilating and Power Plants in Hospitals 101
Minimum Ventilation Requirements for Public and Semi-Public Buildings, for Legislation Purposes 43
Operating Costs of Public Buildings 95
Revision of Constitution 27
Report of Council 11
Report of Secretary 18
Report of Tellers of Election 30
Report of Treasurer 24
Report Relative to the Best Position for a Radiator in a Room 441
Requirements for Ventilation,—Can We Standardize the? by J. J. BLACKMORE 375
RITTER, ARTHUR, Discussion on Operation of Warehouse Heating Plant 148

School, Waite High, Toledo, Ohio, Heating and Ventilating Plant, by S. R. LEWIS 127
Secretary, Report of 18
SPELLER, F. N., The Prevention of Corrosion in Pipe 311
Discussion on Prevention of Corrosion in Pipe 331
Semi-Annual Meeting, Proceedings of the 401
Steam Distributing Systems in a Large City,—Engineering and Cost Data Relative to the Installation of, by F. H. VALENTINE 547
STILL, FRED. R., Discussion on Commercial Drying Apparatus 485
Discussion on Heat Transmission Calculations 495
Discussion on Ventilation of Garages 505

Tellers of Election, Report of 30
Testing of Warm Air Furnaces,—Notes on the, by R. W. DAVENPORT 527
TIMMIS, WALTER S., Discussion on Cost of Operating Heating Plants .. 177
Discussion on Heating a Chicago Office Building 163
Treasurer, Report of 24

VALENTINE, F. H., Engineering and Cost Data Relative to the Installation of Steam Distributing Systems in a Large City 547
Discussion on Heat Transmission Through Building Materials 526
Discussion on Installation of Steam Distributing System 563

PAGE

Valves, Fractional, Design and Operation of, by JAS. A. DONNELLY..... 453
Ventilation, Can We Standardize the Requirements for, by J. J. BLACKMORE 375
Ventilation, New York Commission on, An Outline of the Activities of the—for the Year 1915..... 353
Ventilation of Garages, C. W. OBERT..... 499
Ventilation of Living Quarters, The, Chicago Commission on Ventilation 333
Ventilation Requirements, Report of Committee on Minimum Ventilation Requirements for Public and Semi-Public Buildings, for Legislation Purposes 43
VERNER, W. F., Cost of Removing and Replacing Pavements Incident to the Installing of Heating Lines in City Streets..... 121
Discussion on Flow of Air in Round Galvanized Ducts..... 541
Discussion on Heat Transmission Calculations..... 495
Discussion on Heat Transmission Through Building Materials, 520, 522
Discussion on Installation of Steam Distributing System..... 563
Discussion on Testing of Warm Air Furnaces..... 533
VOORHEES, STEPHEN F., MEYER, HENRY C., JR., Window Leakage..... 183
Discussion on Air Leakage..... 209

Warehouse Heating Plant of Merck & Co., Rahway, N. J.,—Operation of, by J. F. CYPHERS..... 141
Washed Air,—Tests on the Recirculation of, by G. L. LARSON..... 213
WEST, PERRY, Discussion on Report of Committee on Education and Publicity 81, 93
WHIPPLE, MELVILLE C., Discussion on Tests of Recirculation of Washed Air 254
WHIPPLE, PROF. G. C., Discussion on Tests of Recirculation of Washed Air 255
WHITTEN, H. W., MARCH, R. C., Report of the Establishment of a Standard Coefficient for Heat Losses Affected by Wind Movement 195
Window Leakage, by STEPHEN F. VOORHEES and HENRY C. MEYER, JR. 183
WOOLEY, THOS. R., Discussion on Heat Transmission Through Building Materials 525